

What is claimed is:

1. A coaxial cable signal splitter comprising:

a first connector end, a second connector end and a third connector end, each connector end adapted to mate with and electrically connect to a mating coaxial connector;

the first connector end integral with a splitter body and the second and third connector ends connected to the body by a pair of flexible coaxial cables;

each connector end including a center conductor mounted within a coaxially arranged conductive outer shell conductor;

the splitter body including the first connector end and an opposing end with a cable mounting arrangement for connecting the pair of coaxial cables to the splitter body;

the splitter body including a transverse opening between the first connector end and the cable mounting arrangement, the transverse opening extending through the splitter body and having opposing open sides;

wherein, within the transverse opening, the center conductor of the first connector end is electrically connected with the center conductors of the second and third connector ends;

the center conductor of the first connector end including a first end and a second end, the first end of the center conductor of the first connector end extending within the conductive outer shell of the first connector end and the second end of the center conductor of the first connector end extending within the transverse opening of the splitter body;

the second and third connector ends each including a first end of the center conductors extending within the conductive outer shell of the respective connector end, and each of the center conductors of the second and third connector ends having a second opposing end electrically connected with a center conductor of one of the pair of coaxial cables;

the center conductor of each of the pair of coaxial cables extending within the transverse opening of the splitter body and electrically connected to the second end of

the center conductor of the first connector end, and each of the conductive outer shell connectors electrically connected to the other conductive outer shells.

2. The splitter of claim 1, wherein the arrangement for connecting the pair of coaxial cables to the splitter body includes a pair of crimp extensions extending from the splitter body opposite the first connector end, and a coaxially arranged conductor of each of the pair of cables is crimped and electrically connected to one of the crimp extensions.

3. The splitter of claim 1, wherein the first connector end of the splitter body includes a female coaxial connector.

4. The splitter of claim 1, wherein the second connector end includes a male coaxial connector.

5. The splitter of claim 1, wherein the third connector end includes a male coaxial connector.

6. The splitter of claim 1, wherein the splitter body is formed as a solid block and the transverse opening is machined through the splitter body.

7. The splitter of claim 1, wherein the second end of the center conductor of the first connector end includes a transverse slot and the center conductors from each of the pair of coaxial cables are positioned within the slot.

8. A coaxial cable splitter body comprising:

a first end including an integral electrically conductive outer shell of a coaxial cable connector;

a opposite second end including a pair of electrically conductive crimp extensions for mounting a pair of coaxial cables;

a central opening extending transversely between the first and second ends, the first and second ends connected by a pair of side walls on either side of the

central opening, the side walls electrically connecting the outer shell and the crimp extensions;

the first end including an opening extending from the outer shell into the central opening and sized to receive a center conductor mounted within a center conductor insulator;

each of the crimp extensions including an opening extending through the crimp extensions into the central opening, the openings of the crimp extensions sized to receive a center conductor of one of the coaxial cables electrically isolated from the body, each crimp extension also including a textured outer surface;

the central opening providing space for the center conductor of the first end to be electrically connected with the center conductors of the coaxial cables without electrically contacting the side walls.

9. The splitter body of claim 8, further comprising the center conductor within the center conductor insulator positioned within the opening of the first end, the pair of coaxial cables mounted to the crimp extensions of the second end with the center conductors extending into the central opening and electrically isolated from the crimp extensions, an inner end of the center conductor of the first end electrically connected with the two center conductors of the coaxial cables within the central opening.

10. The splitter body of claim 9, further comprising a coaxial cable connector terminating each of the pair of coaxial cables at ends of the coaxial cables opposite the crimp extensions.

11. The splitter body of claim 10, wherein the first end defines a first gender of a coaxial cable connector and the coaxial cable connectors of the coaxial cables each define a second mating gender.

12. The splitter body of claim 8, wherein the central opening is formed by machining through a solid blank.

13. The splitter body of claim 8, further comprising a bushing positioned about the side walls and closing off the central opening.
14. The splitter body of claim 13, wherein the bushing is crimped to the second end.
15. A method of assembling a coaxial cable splitter comprising:
- providing a splitter body with a first end defining a first cable connector end, a second opposing end including a first cable mounting arrangement and a second cable mounting arrangement, the splitter body defining a transverse opening extending through the body between the first and second ends of the splitter body, and the first end and the cable mounting arrangements electrically connected to each other;
 - inserting a first center conductor within a first insulator and positioning the first center conductor and the first insulator within the first end of the splitter body, with a rear end of the first center conductor extending within the transverse opening;
 - inserting a center conductor and a center conductor insulative jacket sheath of a first coaxial cable through the first cable mounting arrangement and into the transverse opening;
 - inserting a center conductor and a center conductor insulative jacket sheath of a second coaxial cable through the second cable mounting arrangement and into the transverse opening;
 - providing a portion each of the center conductors of the coaxial cables extending from the respective insulative jacket sheaths;
 - intertwining the extended portion of each of the center conductors within the transverse opening;
 - positioning the intertwined portions of each center conductor of the coaxial cables within a notch formed in the rear end of the center conductor of the first end to electrically connect the center conductors;
 - electrically connecting an outer conductor of the first coaxial cable to first cable mounting arrangement and crimping the first coaxial cable to the first cable mounting arrangement; and

electrically connecting an outer conductor of the second coaxial cable to the second cable mounting arrangement and crimping the second coaxial cable to the second cable mounting arrangement.

16. The method of claim 15, further comprising positioning a bushing about the splitter body to close off the transverse opening and crimping the bushing about the second end of the splitter body.

17. The method of claim 15, wherein the first coaxial cable includes a second coaxial cable connector terminating an end of the first coaxial cable opposite the splitter body, and the second coaxial cable includes a third coaxial cable connector terminating an end of the second coaxial cable opposite the splitter body.

18. A coaxial cable signal splitter comprising:

(a) a first coaxial connector including:

(1) a first conductive body having:

(A) a hollow first end defining a coaxial connector end for mating with a first mating coaxial connector;

(B) an opposite end defining two parallel hollow crimp extensions, the opposite end spaced from the first end along a longitudinal axis of the first conductive body;

(C) an intermediate portion defining a transverse opening extending through the first conductive body transverse to the longitudinal axis, the intermediate portion including first and second side walls on opposite sides of the transverse opening and spaced on opposite sides of the longitudinal axis, the intermediate portion including first and second end walls on opposite ends of the transverse opening and spaced from each other along the longitudinal axis;

(2) two conductive crimp sleeves, each one mounted over one of the crimp extensions;

(3) a first center conductor positioned within the first end of the first conductive body;

(4) a first insulator electrically isolating the first center conductor from the first conductive body;

(5) a conductive bushing positioned over the first conductive body, wherein the bushing encloses the transverse opening;

(b) a second coaxial connector including a second conductive body, a second center conductor disposed within the second conductive body, and a second insulator electrically isolating the second center conductor from the second conductive body, the second coaxial connector defining a distal end for mating with a second mating coaxial connector;

(c) a third coaxial connector including a third conductive body, a third center conductor disposed within the third conductive body, and a third insulator electrically isolating the third center conductor from the third conductive body, the third coaxial connector defining a distal end for mating with a third mating coaxial connector;

(d) two flexible coaxial cables, each coaxial cable extending between first and second opposite ends, each coaxial cable including:

(1) an outer jacket;

(2) a ground shield inside the outer jacket;

(3) an inner jacket inside the ground shield;

(4) a main signal center conductor inside the inner jacket;

(e) wherein the ground shield and the main signal center conductor of each coaxial cable are connected at the first ends to the second and third coaxial connectors, wherein the ground shields of the coaxial cables are each connected to one of the respective second and third conductive bodies, wherein the main signal center conductors are each connected to one of the respective second and third center conductors;

(f) wherein the ground shields of the coaxial cables at the second ends are each connected to one of the crimp extensions under one of the crimp sleeves;

(g) wherein the main signal center conductors of the coaxial cables at the second ends extend through the crimp extensions and into the transverse opening, wherein the main signal center conductors connect to the first center conductor within the transverse opening.

19. The coaxial cable splitter of claim 18, wherein the first end wall of the intermediate portion of the first conductive body includes two projecting end portions, wherein the bushing defines two notches, each notch receiving one of the projecting end portions.

20. The coaxial cable splitter of claim 18, wherein the transverse opening is formed by machining through a solid blank.